

1        1.    A driver information system comprising:  
2        a handset module, including  
3            a display,  
4            a keyboard, and  
5            an audio device for receiving and playing  
6 acoustic information;  
7        a communication module, including  
8            a wireless communication interface for  
9 accepting data signals from a server; and  
10       a computer coupled to the handset module and to the  
11 communication module, wherein the computer is programmed  
12 to perform the functions of  
13            (a) coupling the handset module to the  
14 communication module to provide telephone communication  
15 services to a user of the handset module, including  
16 accepting telephone dialing commands entered by the user  
17 on the keyboard and coupling the audio device to a  
18 telephone communication channel through the communication  
19 module,  
20            (b) accepting driver information commands  
21 entered by the user through the handset module,  
22            (c) retrieving information through the wireless  
23 communication interface from the server in response to  
24 the driver information commands, and  
25            (d) presenting the retrieved information to the  
26 user.

1        2.    The driver information system of claim 1  
2 wherein the function of presenting the retrieved  
3 information includes displaying the retrieved information  
4 on the display of the handset module.

1           3.    The driver information system of claim 1  
2    wherein the function of presenting the retrieved  
3    information includes displaying the retrieved information  
4    on the display coupled to the computer.

1           4.    The driver information system of claim 1  
2    wherein the function of presenting the retrieved  
3    information includes playing the retrieved information on  
4    the audio device of the handset module.

1           5.    The driver information system of claim 1  
2    further comprising a positioning system coupled to the  
3    computer, and the computer is further programmed to  
4    perform the functions of  
5           (e) accepting a geographic position of the system  
6    from the positioning system, and  
7           (f) providing the position to the server through the  
8    communication interface.

1           6.    A portable information system comprising:  
2           a plurality of switches for initiating access to a  
3    remote server in one of a corresponding plurality of  
4    operating modes;  
5           a positioning system for generating position data  
6    related to a geographic location of the system;  
7           a wireless communication device coupled to the  
8    switches and to the positioning system for passing the  
9    generated position data to a remote server in response to  
10   a signal from the switches, and then receiving  
11   information from the server; and  
12           an audio output device coupled to the wireless

13 communication device for presenting the received  
14 information.

1       7. The information system of claim 6 further  
2 comprising a storage for a unique identification of the  
3 information system coupled to the wireless communication  
4 device for passing the unique identification to the  
5 remote server.

1       8. The information system of claim 6 wherein the  
2 plurality of switches includes a switch for initiating a  
3 traffic information mode.

1       9. The information system of claim 6 wherein the  
2 plurality of switches includes a switch for initiating a  
3 roadside assistance mode.

1       10. The information system of claim 6 wherein the  
2 plurality of switches includes a switch for initiating a  
3 personal information mode.

1       11. The information system of claim 6 wherein the  
2 plurality of switches includes a switch for initiating a  
3 emergency mode.

1       12. A method of providing information to a mobile  
2 user comprising:

3       generating a initiation signal in response to an  
4 input from the mobile user;

5       accepting position data related to the geographic  
6 location of the user from a positioning system;

7       establishing a communication session with a remove

8 server over a wireless communication channel;  
9 providing the position data to the remote server;  
10 accepting information from the remote server;  
11 presenting the accepted information as an acoustic  
12 signal to the mobile user.

1 13. The method of claim 12 further comprising  
2 retrieving a unique identifier and providing the  
3 identifier to the remote system; whereby the accepted  
4 information from the remote server depends on the  
5 provided identifier.

1 14. The method of claim 12 wherein generating the  
2 initiation signal includes generating a signal  
3 identifying one of a plurality of operating modes, and  
4 wherein the information accepted from the remote server  
5 depends on the operating mode.

1 15. An in-vehicle navigation system for providing  
2 route information through a road network comprising:  
3 a first stored database including information  
4 related to roads in the road network within a first  
5 geographic area; and  
6 an onboard computer programmed to perform the  
7 functions of  
8 (a) accepting a specification of a starting and  
9 an ending location in the road network,  
10 (b) if the starting and the ending locations  
11 are within the first geographic area, planning a route  
12 through the road network from the starting to the ending  
13 locations, and  
14 (c) if the starting or the ending locations are  
15 not within the first geographic area, communicating with

16 a remote server computer to retrieve a information  
17 related to a route through the road network from the  
18 starting to the ending locations.

1 16. The in-vehicle navigation system of claim 15  
2 wherein the first stored database is stored on a  
3 removable storage medium.

1 17. The in-vehicle navigation system of claim 15  
2 further comprising a second stored database including  
3 information related to major roads in the road network  
4 within a second geographic area, wherein the first  
5 geographic area includes a common area within the second  
6 geographic area, and the first stored database includes  
7 information about roads in the common area that is not  
8 included in the second stored database.

1 18. A method of providing navigation information  
2 comprising:

3 accepting a specification of starting and an ending  
4 location in a roadway network;

5 accessing a second stored database that includes  
6 information related to major roads in the road network  
7 within a second geographic area;

8 accessing a first stored database that includes  
9 information related to roads in the road network within a  
10 first geographic area, wherein the first geographic area  
11 includes a common area within the second geographic area,  
12 and the first stored database includes information about  
13 roads in the common area that is not included in the  
14 second stored database;

15 if the starting and the ending locations are within  
16 the first geographic area, planning a route through the

17 road network from the starting to the ending locations;  
18 and  
19 if the starting or the ending locations are not  
20 within the first geographic area, communicating with a  
21 remote server computer to retrieve a information related  
22 to a route through the road network from the starting to  
23 the ending locations.

1 19. The method of claim 18 further comprising  
2 accepting the first stored database from a removable  
3 storage medium.

1 20. A vehicle navigation system comprising:  
2 a printed map illustrating a geographic area,  
3 including a representation of a roadway network in the  
4 geographic area, and annotations identifying geographic  
5 features in the geographic area;  
6 an input device for accepting an annotation from  
7 the printed map identifying a chosen geographic feature;  
8 an onboard computer for receiving the accepted  
9 annotation and providing a planned route to the chosen  
10 geographic feature through the roadway network; and  
11 an output device for presenting the planned route  
12 information.

1 21. The vehicle navigation system of claim 20  
2 wherein the input device is a keypad on a telephone  
3 handset, and the output device is a display on the  
4 telephone handset.

1 22. The vehicle navigation system of claim 20  
2 wherein the geographic features include road segments in  
3 the roadway network.

1           23. The vehicle navigation system of claim 20  
2 wherein the geographic features include points of  
3 interest on the roadway network.

1           24. The vehicle navigation system of claim 20  
2 wherein the annotations identifying the chosen geographic  
3 feature include coordinate values of the geographic  
4 features.

1           25. The vehicle navigation system of claim 20  
2 wherein the annotations identifying the chosen geographic  
3 feature include a coded representation of a road segment  
4 in the roadway network.

1           26. A method of providing navigation information  
2 comprising:  
3           providing a printed map illustrating a geographic  
4 area that includes a representation of a roadway network  
5 in the geographic area and annotations identifying  
6 geographic features in the geographic area;  
7           accepting on an input device an annotation from  
8 the printed map identifying a chosen geographic feature;  
9           planning a route to the chosen geographic feature  
10 through the roadway network; and  
11           presenting on an output device the planned route  
12 information.

1           27. A vehicle information system comprising:  
2           a translucent overlay including printed map  
3 illustrating a roadway network;  
4           a display for accepting the translucent overlay,  
5 including a plurality of controlled light sources that

6 when activated are visible through the accepted overlay;  
7 and  
8 an onboard computer programmed to provide  
9 information by activating one or more of the controlled  
10 light sources.

1 28. A method for proving guidance information to a  
2 driver of a vehicle comprising:  
3 providing a translucent overlay which includes  
4 printed markings;  
5 placing the overlay over a graphic display having a  
6 plurality of light sources;  
7 illuminating one or more of the light sources to  
8 indicate a location of the vehicle in relation to the  
9 printed markings.